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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,344

08/25/2005

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EXAMINER

NGUYEN, DINH Q

ART UNIT

PAPER NUMBER

3752

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/522,344	<b>Applicant(s)</b> URICH ET AL.	
	<b>Examiner</b> Dinh Q. Nguyen	<b>Art Unit</b> 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1,2,4-6 and 11-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-6, 11, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Litherland et al. (U.S. Patent No. 6,732,944) in view of Feldman

Litherland et al. discloses all the limitations of the claims except for the resilient members extending from the outer section to the outer edge of the inner section. However, Feldman teaches a transducer having a substrate 30 being supported by a housing 70 that having an outer section 74, an inner section (not numbered) with an aperture 71; an outer edge of the inner section is coupled to the outer section 74 by a plurality of resilient members 76 (see column 4, lines 45-64 and figure 5). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Litherland et al. with the resilient members extending from the outer section to the outer edge of the inner section as suggested by Feldman. Doing so would provide a way to maximize the vibration with minimum drive current (see column 1, lines 15-20).

3. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Litherland et al. in view of Feldman as applied to claims 1, 2, 4-6, 11, 15 above, and further in view of Berglund et al.

Litherland et al. in view of Feldman discloses all the limitations of the claims except for the substrate adapted to carry an electrical signal. However, Berglund et al. teaches a fluid dispersion device having a substrate 61 with outer and inner sections, and actuator 73, wherein the substrate is adapted to carry an electrical signal via conductor 76 and flange 61A (see figure 4). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Litherland et al. and Feldman with the substrate adapted to carry an electrical signal as suggested by Berglund et al. Doing so would provide a way to energize a dispersion device.

With respect to claim 12, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to provide the device of Litherland et al., Feldman and Berglund et al. with the resilient member that adapted to carry an electrical signal.

### ***Response to Arguments***

4. Applicant's arguments filed October 28, 2009 have been fully considered but they are not persuasive in view of the Feldman reference as indicated above.
5. Applicant's arguments with respect to claims 1, 2, 4-6 and 11-15 have been considered but are moot in view of the new ground(s) of rejection.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dinh Q. Nguyen whose telephone number is 571-272-4907. The examiner can normally be reached on Monday-Thursday 6:00-4:30.

Art Unit: 3752

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on 571-272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dinh Q Nguyen/  
Primary Examiner, Art Unit 3752

dqn